

**S**ome of the greatest human interest stories relating to photovoltaics come from the one-on-one impact that PV can make in the health of people in the developing world: PV is used to refrigerate vaccine, to create safe drinking water, to keep life-saving blood supplies under refrigeration, to pump fresh water where there was only a polluted stream before.

And PV can have that same impact on the safety of people, too. Fire fighters use PV in numerous ways. PV is used to ensure that test ban treaties are honored. In fact, the uses for PV are so diverse that they are limited only by the imagination of the user.

Whatever the future applications of PV may be, it is a certainty that it will continue to make us healthier and safer.



is SCE, the modules are 12kW AstroPower, with an Omnion inverter. *[Photo courtesy Solar Electrical Systems]*



◁ International health organizations use solar panels to power refrigeration units in developing countries and in emergency situations anywhere in the world. This application saves lives by refrigerating precious blood and vaccines. *[Photo courtesy GeoSolar Energy Systems, Inc.]*



◁ Here a 768 watt Solarex array powers a water chlorinating station. *[Photo courtesy Atlantic Solar Products]*



◁ This solar-powered water purification and disinfection unit uses the power of the sun to provide clean, microbiologically safe drinking water. Units such as this are critical in areas struck by natural disaster or areas where the only source of drinking water is contaminated. *[Photo courtesy Southwest Photovoltaics]*



◁ This installation at Long Tom Look Out on the Bitterroot National Forest, Montana, powers a two-way radio system for USDA Forest Service firefighters. Installed by Sunelco, it uses 24 Solarex 60W modules. *[Photo courtesy Kyocera Solar]*

◁ PV helps power the Oxnard, California Fire Station Number Seven, which is a line-tied system designed and installed by Solar Electrical Systems, Thousand Oaks, California. The customer

◁ A project undertaken by Direct Global Power, Schenectady, and the New York State Police, proved the efficacy of a PV power option atop Cathead Mountain (shown here) and Black Mountain, both within the Adirondack Preserve. Thirty-six Siemens modules designed to produce about 2kW under peak conditions augment existing systems at both locales. Reliability and spatial coverage of the State Police's radio communications systems have been increased. *[Photo courtesy Direct Global Power, Inc.]*





◁ Some perfectly viable applications for photovoltaics may result in curiously interesting photographs, but small PV-powered refrigeration units for items such as vaccines is a very important application for PV in developing countries—or in the event of major weather occurrences or natural disasters where conventional power is lost here in the United States. *[Photo courtesy Siemens Solar Industries]*

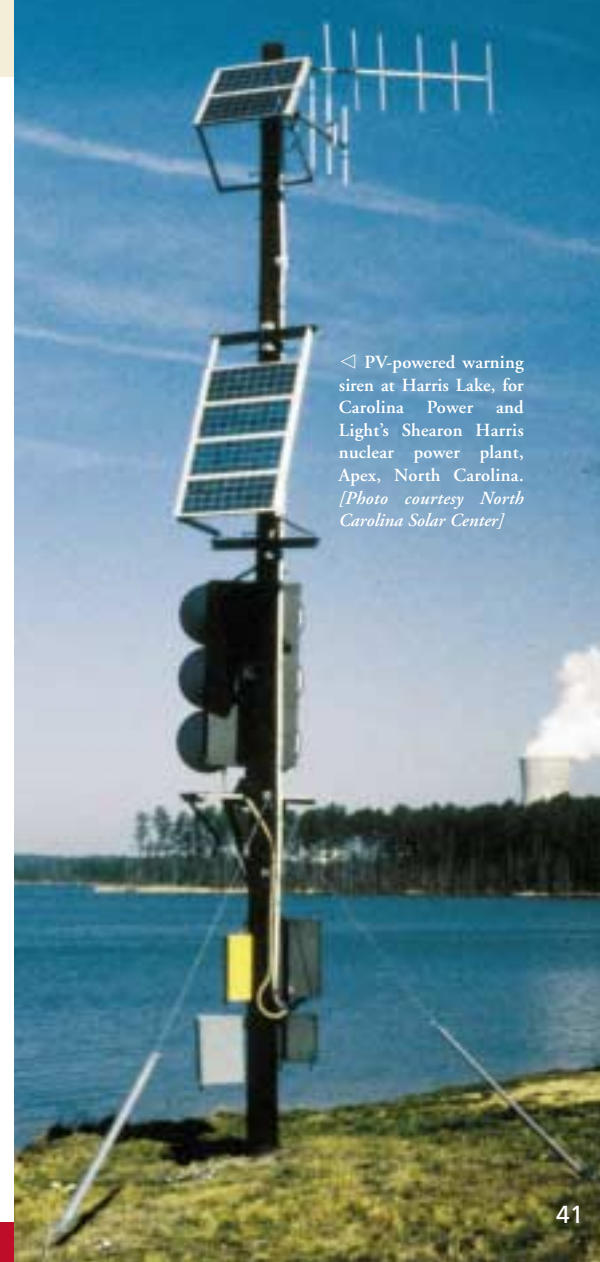


◁ A PV-fed water treatment plant is part of the Army's Yuma Proving Ground complex. Shown here are the plant, the processing tanks, and the "long line" 12.47KV switch. *[Photo courtesy U.S. Army]*



▽ A PV hybrid system (2.2kW PV array and two diesel generators) powers this International Nuclear Test Ban Treaty seismic monitoring station in Antarctica. The system, located at Bull Pass, was designed, manufactured, and installed by Northern Power Systems, Waitsfield, Vermont. *[Photo courtesy Northern Power]*

▽ In northern California, where wildfires sometimes destroy thousands of acres of land, these deployable PowerPods are used by fire fighting crews in base camps and staging areas. They provide power for integrated flood lighting, ac inverter power for computers, radio battery charging, and communications equipment. *[Photo courtesy PowerPod Corporation]*



◁ PV-powered warning siren at Harris Lake, for Carolina Power and Light's Shearon Harris nuclear power plant, Apex, North Carolina. *[Photo courtesy North Carolina Solar Center]*